



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

## Ferry-Morse Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT, 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Tenderlake'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 30th day of December in the year of our Lord one thousand nine hundred and eighty-two

Attest:

*Kenneth A. Evans*  
Acting  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture







VARIETY: Tenderlake (formerly E6207 (formerly 1D-15B(C)Ms(W)Ms(C)Ms (formerly 1C-X590MsMs(W)V(C)5(W)Ms#2(C)C)))

Exhibit A: Origin and Breeding History of the Variety

Tenderlake originated through the pedigree method of breeding as a F<sub>9</sub> single plant selection from the 1C-X590 cross of 2 pedigreed lines. The seed parent, 1C-X81Ms#2(W)E(GH)Ms(C)A, is a sister selection from the same cross that gave rise to Tidal Wave. The pollen parent 1C-X42Ms(W)B(GH)Ms(C)B, was the progenitor line of the variety Blue Crop. The cross was made in the greenhouse at San Juan Bautista, California, in the fall of 1968. The F<sub>13</sub> bulk-mass of seed was designated the stock seed for Tenderlake in the spring of 1980.

F<sub>1</sub> seed of 1C-X590 was planted in the California greenhouse in the spring of 1969 and the harvested F<sub>2</sub> seed, 1C-X590Ms, was planted in the field in California that summer. The row was noted to have a good plant habit but with plants somewhat short; besides selecting six single F<sub>2</sub> plants, remainder of the seed from the row was bulk-massed.

The F<sub>3</sub> bulk-massed seed, 1C-X590MsMs, was planted in Wisconsin in the summer of 1970. A medium dark pod color was noted generally for the progeny; 88 single plant F<sub>3</sub> selections were taken from the row.

The F<sub>4</sub> progeny rows were planted in California the summer of 1971. The 19th row, 1C-X590MsMs(W)V, was noted to have a medium small leaf and be early maturing; 5 F<sub>4</sub> single plants were selected from this row.

The F<sub>5</sub> progeny rows were planted in Wisconsin in the summer of 1972. The fifth selection, 1C-X590MsMs(W)V(C)5, stood out for a very good concentration of maturity and the pods were smooth, round, well-filled, slow seed development, and free of interocular cavitation. Thirteen F<sub>5</sub> selections were made in this row.

Seed of four of the 13 F<sub>5</sub> selections (3,5,9,13) were massed together and this F<sub>6</sub> seed was designated 1C-X590MsMs(W)V(C)5(W)Ms#2 and planted in California in the summer of 1973. The row was noted for its high yield and three F<sub>6</sub> selections were made.

The F<sub>7</sub> progeny rows were planted in Wisconsin in the summer of 1974. The third row, 1C-X590MsMs(W)V(C)5(W)Ms#2(C)C, was outstanding; the plants were upright, the yield of pods heavy, and the pods were full. Three F<sub>7</sub> selections were made and the F<sub>8</sub> bulk-mass seed from the row was designated 1D-15.

The three F<sub>8</sub> progeny rows were planted in the field in Wisconsin in the summer of 1975. The second row, 1D-15B, was noted as having very good concentration of maturity and a very heavy yield; the F<sub>9</sub> seed was bulk-massed from this row.



VARIETY: Tenderlake (formerly E6207 (formerly ID-15B(C)Ma(W)Ma(C)Ma  
(formerly IC-X290Ma(W)V(C)2(W)Ma2(C)C))

Exhibit A: Origin and Breeding History of the Variety

Tenderlake originated through the pedigree method of breeding a single plant selection from the IC-X290 cross of 2 pedigree lines. The seed parent, IC-X81Ma2(W)E(C)Ma(C)A, is a sister selection from the same cross that gave rise to Tidal Wave. The pollen parent IC-X42Ma(W)B(C)Ma(C)2, was the progenitor line of the variety Blue Crop. The cross was made in the greenhouse at San Juan Bautista, California, in the fall of 1968. The F<sub>1</sub> bulk mass of seed was designated as stock seed for Tenderlake in the spring of 1980.

F<sub>1</sub> seed of IC-X290 was planted in the California greenhouse in the spring of 1969 and the harvested F<sub>2</sub> seed, IC-X290Ma, was planted in the field in California that summer. The row was noted to have a good plant habit but with plants somewhat short; besides selecting six single F<sub>2</sub> plants, remainder of the seed from the row was bulk-massed.

The F<sub>2</sub> bulk-massed seed, IC-X290Ma, was planted in Wisconsin in the summer of 1970. A medium dark pod color was noted generally for the progeny; 88 single plant F<sub>2</sub> selections were taken from the row.

The F<sub>2</sub> progeny rows were planted in California the summer of 1971. The 19th row, IC-X290Ma(W)V, was noted to have a medium small leaf and be early maturing; 5 F<sub>2</sub> single plants were selected from this row.

The F<sub>2</sub> progeny rows were planted in Wisconsin in the summer of 1972. The fifth selection, IC-X290Ma(W)V(C)2, stood out for a very good concentration of maturity and the pods were smooth, round, well-filled, slow seed development, and free of interlobular cavitation. Thirteen F<sub>2</sub> selections were made in this row.

Seed of four of the 13 F<sub>2</sub> selections (3, 5, 9, 13) were massed together and this F<sub>3</sub> seed was designated IC-X290Ma(W)V(C)2(W)Ma2 and planted in California in the summer of 1973. The row was noted for its high yield and three F<sub>3</sub> selection were made.

The F<sub>3</sub> progeny rows were planted in Wisconsin in the summer of 1974. The third row, IC-X290Ma(W)V(C)2(W)Ma2(C)C, was outstanding; the plants were upright, the yield of pods heavy, and the pods were full. Three F<sub>3</sub> selections were made and the F<sub>3</sub> bulk-mass seed from this row was designated 11-15.

The three F<sub>3</sub> progeny rows were planted in the field in Wisconsin in the summer of 1975. The second row, 11-15B, was noted as having very good concentration of maturity and a very heavy yield; the F<sub>3</sub> seed was bulk-massed from this row.



Exhibit A: Origin and Breeding History of the Variety (cont'd)

From 1976 to 1978 the possible new variety 1D-15B went through intensive trials in Wisconsin, New York, and Oregon, and two generations of seed increase were carried out under the direction of the Research Division of Ferry-Morse Seed Company. 1D-15B continued to show Blue Lake quality in the canned product (uniform bright dark green color, freedom from carpel separation in the steam table evaluation, freedom from epidermal sloughing, firm texture). In the field 1D-15B combined a medium-early concentrated maturity, heavy yield, medium tall upright plant with a consistent yield of smooth, round, full pods. The characteristics of the variety maintained themselves in a stable condition through the 2 generations of seed increase and no off-types (pod or otherwise) were noted in approximately 60,000 plants grown.

In the spring of 1978 Ferry-Morse Seed Company made the decision to go ahead with 1D-15B as a new variety and re-designated the line E6207. After 2 additional generations of seed increase the line continued to maintain stability of its characteristics; in the F<sub>13</sub> generation of increase in 1980 no off-types were observed among 200 plants.

E6207 was named Tenderlake in the early summer of 1980.



Exhibit A: Origin and Breeding History of the Variety (cont'd)

From 1976 to 1978 the possible new variety 1D-158 went through intensive trials in Wisconsin, New York, and Oregon, and two generations of seed increase were carried out under the direction of the Research Division of Terry-Morse Seed Company. 1D-158 continued to show blue lake quality in the canned product (uniform bright dark green color, freedom from epidermal sloughing, firm stem table evaluation, freedom from epidermal sloughing, firm texture). In the field 1D-158 combined a medium-early concentrated maturity, heavy yield, medium tall upright plant with a consistent yield of smooth, round, full pods. The characteristics of the variety maintained themselves in a stable condition through the 3 generations of seed increase and no off-types (pod or otherwise) were noted in approximately 60,000 plants grown.

In the spring of 1978 Terry-Morse Seed Company made the decision to go ahead with 1D-158 as a new variety and re-designated the line 66207. After 2 additional generations of seed increase the line continued to maintain stability of its characteristics; in the 7th generation of increase in 1980 no off-types were observed among 200 plants.

66207 was named Tenderlake in the early summer of 1980.

JAN 16 1981



## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

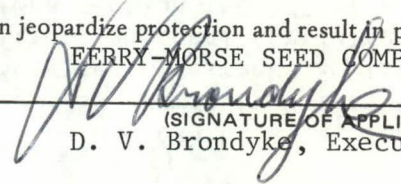
JAN 16 1981



# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY <b>E6207</b>		1b. VARIETY NAME <b>TENDERLAKE</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8100041</b>	
2. KIND NAME <b>Snap Bean</b>		3. GENUS AND SPECIES NAME <b>Phaseolus vulgaris L.</b>		FILING DATE <b>1/16/81</b>	TIME <b>1:00</b> A.M. P.M.
4. FAMILY NAME (BOTANICAL) <b>Leguminosae</b>		5. DATE OF DETERMINATION <b>Spring, 1978</b>		FEE RECEIVED \$ <b>500.00</b> \$ <b>250.00</b>	DATE <b>1/16/81</b> <b>12/3/82</b>
6. NAME OF APPLICANT(S) <b>FERRY-MORSE SEED COMPANY</b> <b>Dr. George C. Emery</b> <b>Breeder</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>111 Ferry-Morse Way</b> <b>Drawer 7274</b> <b>Mountain View, CA 94042</b>		8. TELEPHONE AREA CODE AND NUMBER <b>(415)967-6973</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>California</b>		11. DATE OF INCORPORATION <b>7 April 1969</b>	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>MR. DAVID J. THOMPSON</b> <del>Mr. D. V. Brondyke, Executive Vice President &amp; DIRECTOR OF RESEARCH</del> <b>PH (408)637-7461</b> <del>FERRY-MORSE SEED COMPANY P.O. BOX 1010; 2191 SAN JUAN ROAD</del> <del>111 Ferry-Morse Way, Drawer 7274, Mountain View, CA 94042</del>					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED: <b>SAN JUAN BAUTISTA, CA 95045</b>					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) <input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement. <input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.) <input checked="" type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO		14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED			
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.  The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.  Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.  December 18, 1980 (DATE)					
(DATE)		 FERRY-MORSE SEED COMPANY (SIGNATURE OF APPLICANT) D. V. Brondyke, Executive V.P.			
(DATE)		(SIGNATURE OF APPLICANT)			



VARIETY: Tenderlake (formerly E6207 (formerly 1D-15B(C)Ms(W)Ms(C)Ms (formerly 1C-X590MsMs(W)V(C)5(W)Ms#2(C)C)))

Exhibit <sup>B R/S</sup> D: Data Indicative of Novelty

Tenderlake is a distinct variety and represents a unique combination of earliness, Blue Lake quality, and strong bush habit. The variety with which it relates the closest in character is Blue Crop. Two characteristics by which Tenderlake can be distinguished from Blue Crop is in having a shorter pod length and shorter seed length.

A. Measurements were taken from a greenhouse planting held at temperature regime of 85° Fahrenheit day/70° night at Columbus, Wisconsin. Seed was planted March 18, 1980.

	<u>Tenderlake</u>	<u>Blue Crop</u>	$\bar{d}$	$\frac{s}{d}$	$t$	$p$
1. Pod length (cm) (100 paired comparisons)	14.1	15.2	1.23	.194	6.34	<.001
2. Seed length (mm) (100 paired comparisons)	11.7	12.5	0.63	.158	3.99	<.001

B. Measurements were taken from paired rows in the field at Columbus, Wisconsin. Seed was planted June 18, 1980.

	<u>Tenderlake</u>	<u>Blue Crop</u>	$\bar{d}$	$\frac{s}{d}$	$t$	$p$
1. Pod length (cm) (100 paired comparisons)	15.6	16.5	0.94	.188	5.00	<.001
2. Seed length (mm) (50 paired comparisons)	11.6	12.5	0.90	.162	5.56	<.001

C. Measurements were taken from paired rows in the field at Columbus, Wisconsin. Seed was planted May 19, 1981.

	<u>Tenderlake</u>	<u>Blue Crop</u>	$\bar{d}$	$\frac{s}{d}$	$t$	$p$
1. Pod length (cm) (100 paired comparisons)	14.2	15.1	0.95	.137	6.95	<.001
2. Seed length (mm) (98 paired comparisons)	12.2	13.1	1.15	.159	7.23	<.001

D. Measurements were taken from paired rows in the field at Columbus, Wisconsin. Seed was planted June 4, 1981.

	<u>Tenderlake</u>	<u>Blue Crop</u>	$\bar{d}$	$\frac{s}{d}$	$t$	$p$
1. Seed length (mm) (100 paired comparisons)	12.9	13.7	0.84	.128	6.56	<.001



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JUN 17 1981

[illegible]



E. Measurements were taken from paired rows in the field at San Juan Bautista, California. Seed was planted June 10, 1981.

	<u>Tenderlake</u>	<u>Blue Crop</u>	<u><math>\bar{d}</math></u>	<u><math>\frac{s}{\bar{d}}</math></u>	<u>t</u>	<u>p</u>
1. Pod length (cm) (100 paired comparisons)	14.9	15.3	0.40	.189	2.107	<.05 - .025
2. Seed length (mm) (100 paired comparisons)	12.7	13.5	0.75	.117	6.41	<.001



Measurements were taken from paired rows in the field at San Juan Bautista, California. Seed was planted June 10, 1981.

	Templeton	Blue Crop	$\bar{d}$	$\frac{a}{b}$	$\frac{c}{d}$
1. Seed length (mm)	14.9	12.1	0.40	1.19	2.107 < .05 - .025
(100 paired comparisons)					
2. Seed length (mm)	13.7	13.2	0.75	1.17	0.41 < .001
(100 paired comparisons)					

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VARIETY: Tenderlake (formerly E6207 (formerly 1D-15B(C)Ms(W)Ms(C)Ms  
(formerly 1C-X590MsMs(W)V(C)5(W)Ms#2(C)C)))

*D per letter of 2/10/81 EMB*  
Exhibit B: Botanical Description of the Variety

Seed germination and emergence occur at a medium rate with a medium seedling vigor. Time of flowering is midseason (similar to Tidal Wave). The pods reach edible maturity in early midseason ( $\pm$  4 days before Early Gallatin,  $\pm$  1 day later than Mt. Hood). Seed development in the pods is slow.

Plants are medium upright, medium in height, somewhat spreading. Foliage color is dark green (similar to Tidal Wave). Leaves are deltoid ovate (14 cm long x 11 cm wide for the center leaflet of the second trifoliate above the unifoliate leaf), acuminate, with round or truncated bases. Leaves are medium large, similar to Tidal Wave, and medium in number. Stems and leaves are smooth to slightly pubescent. Inflorescences arise from the apex and leaf axils and contain 4 to 8 white flower buds. Stems of plants are medium in thickness. Pods are borne under the foliage, but off the ground.

Pods vary from 10 to 17 cm in length, but average  $\pm$  15 cm. Pods are slightly creaseback, 10 mm from suture to suture and 11 mm from sidewall to sidewall. Pods reach a medium diameter (12 mm x 12 mm) just before becoming over-mature. Pods are generally straight to very slight curve. Pod surface is smooth to slightly pubescent. Pod spur is medium in length (14 mm). Pod color is a medium dark green. Pod flesh is very firm. Pod seed cavity is small. Pods are generally free of interocular cavitation.

Seeds are white, round in cross-section, oblong, slightly reniform; compared to Tidal Wave the seed is similar in size and more reniform.



VARIETY: Tenderlake (formerly E6207) (formerly 10-158(C) (W) (M) (C) (M)  
(formerly 10-2590(M) (W) (C) (M) (M) (C) (C))

Exhibit B: Botanical Description of the Variety

Seed germination and emergence occur at a medium rate with a medium seedling vigor. Time of flowering is midseason (similar to Tidal Wave). The pods reach edible maturity in early midseason (4-5 days before Early Galatin, 1 day later than Mt. Hood). Seed development in the pods is slow.

Plants are medium upright, medium in height, somewhat spreading. Foliage color is dark green (similar to Tidal Wave). Leaves are bell-shaped ovate (14 cm long x 11 cm wide for the center leaflet of the second trifoliate above the unifoliate leaf), acuminate, with round or truncated bases. Leaves are medium large, similar to Tidal Wave, and medium in number. Stems and leaves are smooth to slightly pubescent. Inflorescences arise from the apex and leaf axils and contain 4 to 8 white flower buds. Stems of plants are medium in thickness. Pods are borne under the foliage, but off the ground.

Pods vary from 10 to 17 cm in length, but average 12 cm. Pods are slightly crossback, 10 mm from suture to suture and 11 mm from side to side. Pods reach a medium diameter (12 mm) just before becoming over-mature. Pods are generally straight to very slight curve. Pod surface is smooth to slightly pubescent. Pod apex is medium in length (14 mm). Pod color is a medium dark green. Pod flesh is very firm. Pod seed cavity is small. Pods are generally free of interocular cavitation.

Seeds are white, round in cross-section, oblong, slightly reniform; compared to Tidal Wave the seed is similar in size and more reniform.

JAN 16 1981



## EXHIBIT "E"

Plant Variety Protection Application

No: \_\_\_\_\_

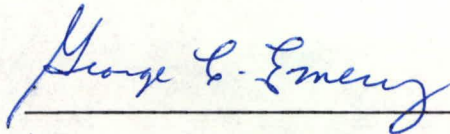
ASSIGNMENT

I, DR. GEORGE C. EMERY, agree and hereby do transfer and assign to FERRY-MORSE SEED COMPANY all of my rights, title, and interest in and to that certain variety namely, \_\_\_\_\_  
SNAP BEAN - TENDERLAKE,  
for which application for Plant Variety Protection Certificate has been filed. This agreement shall be binding on my administrators, successors and assigns.

In Witness Whereof, I have executed this agreement this

9 day of December, 1980.

BREEDER



DR. GEORGE C. EMERY



EXHIBIT "E"

Plant Variety Protection Application

No: \_\_\_\_\_

ASSIGNMENT

I, DR. GEORGE C. EMERY, do hereby  
transfer and assign to FERRY-MORSE SEED COMPANY all of my rights, title,  
and interest in and to the certain variety named, \_\_\_\_\_

SNAP BEAN - TENDERLAKE  
for which application for Plant Variety Protection Certificate has been  
filed. This assignment shall be binding on my administrators, successors  
and assigns.

In Witness Whereof, I have executed this assignment this

\_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

BREEDER

DR. GEORGE C. EMERY

JAN 16 1981  
JAN 16 1981  
1:00 pm



## ASSIGNMENT OF INTELLECTUAL PROPERTY

WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 4511 Willow Road, Suite 3, Pleasanton, California 94588 ("Assignor"), has, pursuant to that certain Bill of Sale and Assignment dated as of June 30, 1997, transferred to FERRY-MORSE SEED COMPANY (CALIFORNIA), a corporation duly organized and existing under the laws of the State of California, having its principal place of business at 555 Codoni Avenue, P.O. Box 4938, Modesto, California 95352-4938 ("Assignee"), all of the intellectual property Assignor had adopted, used and was using as of the effective date of this Assignment, including without limitation, the intellectual property represented by the United States Plant Variety Protection Certificates of Assignor identified on Schedule A hereto (collectively, the "Property"); and

WHEREAS, on the date hereof, Assignee has changed its name to "Harris Moran Seed Company";

NOW, THEREFORE, effective by this instrument as of the close of business on June 30, 1997, and for good and valuable consideration, receipt of which is hereby acknowledged, Assignor hereby assigns to Assignee any and all right, title and interest worldwide in and to the Property and any and all recordations thereof, including, but not limited to, the use of the Property in any manner, all benefit of any and all prior use of the Property, and any and all rights to initiate claims or proceedings for past, present or future infringements of Assignor's rights, title and interest in and to the Property.

Dated: as of June 30, 1997

HARRIS MORAN SEED COMPANY

By: 

Philip Ashcraft, President





CERTIFICATE OF AMENDMENT  
OF THE  
ARTICLES OF INCORPORATION  
OF

FERRY-MORSE SEED COMPANY (CALIFORNIA)  
(a California corporation)

ENDORSED  
FILED

In the office of the Secretary of State  
of the State of California

JUN 30 1997

*Bill Jones*  
BILL JONES, Secretary of State

To the Secretary of State  
State of California

Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSE SEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

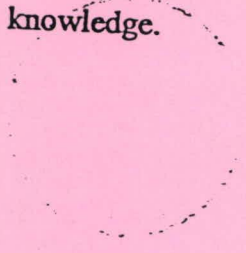
1. The name of the Corporation is Ferry-Morse Seed Company (California).
2. Article One of the Corporation's Articles of Incorporation, which relates to the name of the Corporation, is hereby amended in its entirety to read as follows:
  - One. The name of this Corporation is:  
HARRIS MORAN SEED COMPANY.
3. The amendment herein provided for has been approved by the Corporation's Board of Directors.
4. The amendment herein provided for was approved by the written consent of the Corporation's sole shareholder in accordance with the provisions of Section 902 of the California General Corporation Law. The total number of outstanding shares of the corporation is 5,000.

IN WITNESS WHEREOF, each of the undersigned does hereby declare under the penalty of perjury that he or she signed the foregoing Certificate of Amendment as of June 30,





1997, in the Town of Modesto, State of California, in the official capacity set forth beneath his or her signature and that the statements set forth in this certificate are true of his or her own knowledge.

  
Yves Queste  
Yves Queste, President

Helen Andritsakis  
Helen Andritsakis, Secretary





## State of California



SECRETARY OF STATE



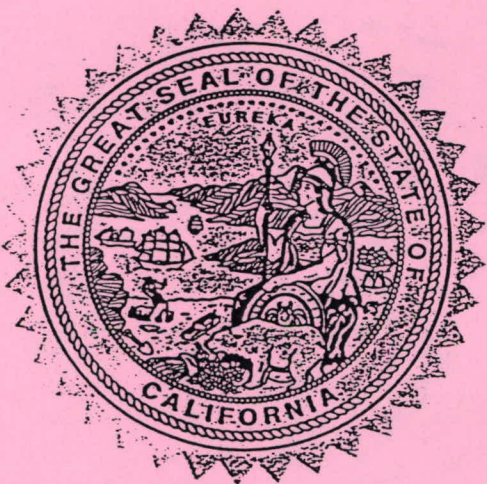
2 PAGES

I, *BILL JONES*, Secretary of State of the State of California, hereby certify:

That the attached transcript has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

JUN 30 1937

*Bill Jones*

Secretary of State





## 3. PLANT: (Cont'd)

Pod position: 1 = low    2 = high    3 = scattered

Bush form (illustrated below):



1 = spherical bush form



2 = stem bush form



3 = wide bush form



4 = high bush form

5 = other (specify) \_\_\_\_\_

## 4. LEAVES:

1 = smooth    2 = wrinkled

1 = dull    2 = glossy

Size: 1 = small (Earliwax)    2 = medium    3 = large (Tendercrop)

Color: 1 = light green (as light or lighter than Bountiful)    2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)

## 5. FLOWERS:

Color: 1 = white    2 = cream    3 = pink    4 = lilac    5 = purple    6 = Other (specify) \_\_\_\_\_

Days to 50% bloom

## 6. FRESH PODS: (Edible maturity, average for 20 pods)

Exterior color: 1 = light green (as light or lighter than Bountiful)  
2 = medium green  
3 = dark green (as dark or darker than Bush Blue Lake 290)  
4 = light yellow (Brittlewax)  
5 = golden yellow (Cherokee Wax)  
6 = green-red variegated (Horticultural)  
7 = other (specify) \_\_\_\_\_

% Sieve size distribution at optimum maturity for non-flat pods

## Note:

1 = 4.76 mm to 5.76 mm

4 = 8.34 mm to 9.53 mm

2 = 5.76 mm to 7.34 mm

5 = 9.53 mm to 10.72 mm

3 = 7.34 mm to 8.34 mm

6 = 10.72 mm or larger

1	2	3	4	5	6
		13	17	40	30

3 sieve   cm length  mm width  mm thickness

4 sieve   cm length  mm width  mm thickness

5 sieve   cm length   mm width   mm thickness

6 sieve   cm length   mm width   mm thickness



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Bean)

## OBJECTIVE DESCRIPTION OF VARIETY

BEAN (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) FERRY-MORSE SEED COMPANY	FOR OFFICIAL USE ONLY PVPO NUMBER 8100041
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 111 Ferry-Morse Way Drawer 7274 Mountain View, CA 94042	VARIETY NAME OR TEMPORARY DESIGNATION TENDERLAKE

Place numbers in the boxes (e.g. ) for the characters that best describe this variety. Measured data should be for SPACED PLANTS. Ranges may also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: . The location of test area is Columbus, Wisconsin. Please answer questions appropriate for your variety if the information is available.

## 1. TYPE:

1 = Field (dry-edible) 2 = Garden

## 2. MARKET MATURITY:

Days to edible pods  Days to green shells

Days to dry seeds

Heat units to edible pods  Heat units to green shells

Heat units to dry seeds

No. days earlier than . . . . .

. . . . . Same as . . . . .

No. days later than . . . . .

1 = Tendercrop  
3 = Kinghorn Wax  
5 = Michelite 62  
7 = Bush Blue Lake 290

2 = Kentucky Wonder  
4 = White Kidney  
6 = Dwarf Horticultural  
8 = Other (specify below)

MT. HOOD

## 3. PLANT:

1 = Determinate 2 = Indeterminate

cm height

cm shorter than . . . . .

Same as . . . . .

cm taller than . . . . .

cm spread

cm narrower than . . . . .

width same as . . . . .

cm wider than . . . . .

comparison variety from above

comparison variety from above

Number primary branches near base

Branching habit:  
1 = compact 2 = open

Main stalk: 1 = brittle 2 = wirey

1 = stout 2 = thin



## 8. SEED SHAPE AND SIZE: (Cont'd)

☐ 2 1 = truncate ends    2 = rounded ends

☐ 2 ☐ 4 gm/100 seed

☐ ☐ 9 gm/100 seed lighter than ..... ☐ 8
gm/100 seed same as .... ☐

comparison variety from page one

☐ ☐ gm/100 seed heavier than ..... ☐

## 9. ANTHOCYANIN: (1 = absent 2 = present)

☐ 1 Flowers☐ 1 Stems☐ 1 Pods☐ 1 Seeds☐ 1 Leaves

## 10. DISEASE RESISTANCE (0 = not tested 1 = susceptible 2 = resistant):

☐ 0 Anthracnose (specify race below) \_\_\_\_\_☐ 0 Fuscos blight☐ 0 Rust (specify race below) \_\_\_\_\_☐ 0 Red node virus☐ 0 Powdery mildew☐ 0 Pod mottle virus☐ 0 Fusarium root rot☒ 2 Bean common mosaic virus (specify strain below)  
BV-1A☐ 0 Pythium root rot☒ 2 Mosaic mottle☐ 0 Rhizoctonia root rot☐ 0 Black root☐ 0 Pythium wilt☐ 0 Bean yellow mosaic virus☐ 0 Angular leaf spot☐ 0 Curly top☐ 0 Bacterial wilt☐ Other (specify below) \_\_\_\_\_☐ 0 Halo blight (specify race below) \_\_\_\_\_

## 11. INSECT RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

☐ 0 Aphids☐ 0 Root knot nematode☐ 0 Leaf hopper☐ 0 Seed corn maggot☐ 0 Lygus☐ 0 Thrips☐ 0 Pod borer☐ 0 Weavils☐ 0 Other (specify below) \_\_\_\_\_

## 12. PHYSIOLOGICAL RESISTANCE: (0 = not tested 1 = susceptible 2 = resistant)

☐ 0 Heat☐ 0 Cold☐ 0 Drought☐ 0 Air pollution

## 13. COMMENTS:

JAN 16 1981



## 6. FRESH PODS: (Cont'd)

☐ 3 Cross section pod shape: 1 = flat 2 = oval 3 = round 4 = heart

☐ 2 Creaseback: 1 = present 2 = absent

☐ 2 Pubescence: 1 = none 2 = sparse 3 = considerable

☐ 2 Spur: 1 = straight 2 = slightly curved 3 = curved

☐ 1 Constrictions: 1 = none 2 = slight 3 = deep

☐ 2 Pod flesh: 1 = light 2 = medium 3 = dark

☐ 1 ☐ 4 mm spur length

☐ 2 Fiber: 1 = none 2 = sparse 3 = considerable

☐ 7 Number of seeds per pod

☐ 1 Surface: 1 = smooth 2 = rough

☐ 2 Suture string: 1 = present 2 = absent

☐ 1 Seed development (Snap Bean): 1 = slow 2 = medium 3 = fast

☐ 1 Machine harvest: 1 = adapted 2 = not adapted

☐ 2 Pod flavor: (1) Standard (Tendercrop)  
(2) Mild Blue Lake (BBL 274)  
(3) Strong Blue Lake (Pole FM1)  
(4) Mild Romano (Roma)  
(5) Strong Romano (Pole Romano)  
(6) Other (specify) \_\_\_\_\_

## 7. SEED COAT COLOR:

☐ 1 1 = Monochrome 2 = Polychrome ☐ 1 1 = shiny 2 = dull

☐ 1 Primary color: 1 = white 2 = yellow 3 = buff 4 = tan

☐ Secondary color: 5 = brown 6 = pink 7 = red 8 = purple  
9 = blue 10 = black 11 = other (specify) \_\_\_\_\_

☐ 1 Color Pattern: 1 = none 2 = splashed 3 = mottled 4 = striped 5 = flecked 6 = dotted

☐ Secondary color location: 1 = hilar ring 2 = ventral surface  
3 = sides 4 = dorsal surface  
5 = not restricted to any area 6 = combination of location (specify below)

☐ 1 Hilar ring on colored seeds: 1 = absent 2 = narrow 3 = butterfly shaped

## 8. SEED SHAPE AND SIZE:

☐ 1 Hilum view: 1 = elliptical 2 = oval  
3 = round

☐ 4 Cross section: 1 = elliptical 2 = oval 3 = cordate  
4 = round

☐ 3 Side view:



1 = oval to oblong



2 = round



3 = reniform